

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Claim 1 (Currently amended): An X-ray unit device for the generation of short at least one X-ray beam pulses pulse, the device comprising:

with an X-ray tube (10) which has having a thermionic cathode (12) and an anode; (16);
and

with an X-ray generator comprising which has a Marx generator first circuit (22, 20, 18) for the generation of a at least one high-voltage pulse which is applied to the anode (16) for the generation of the at least one X-ray pulse, and a simmer power supply unit by plus a second circuit (26) via which a low voltage is continuously applied to the anode (16) wherein the low voltage is which at the most is sufficient for the generation of low-energy X-radiation (30) and pre-heats the X-ray tube; (10);

wherein the characterized in that the first circuit is a Marx generator and the second circuit is a simmer power supply unit (26) and is also used as a voltage source (32) of the Marx generator.

Claim 2 (Currently amended): An apparatus Device for the inspection of objects, the apparatus comprising:

an X-ray tube having a thermionic cathode and an anode;

an X-ray generator comprising a Marx generator for generating at least one high-voltage pulse applied to the anode for the generation of at least one X-ray pulse, and a simmer power supply unit by which a low voltage is continuously applied to the anode, wherein the low voltage pre-heats the X-ray tube and is at most sufficient for the generation of low-energy X-radiation; with an X-ray unit (10) and

an imaging apparatus (44, 46) for generating an image of the object by means of the at least one X-ray pulse (30), characterized in that the X-ray unit (10) is developed according to claim 1

Claims 3-5 (Canceled)

Claim 4 (New): A method of generating an X-ray pulse comprising:

providing an X-ray tube having a thermionic cathode and an anode;
preheating the X-ray tube by continuously applying a low voltage to the X-ray tube
wherein the low voltage preheats the X-ray tube and is at most sufficient for the generation of
low-energy X-radiation;
generating at least one high voltage pulse; and
applying the at least one high voltage pulse to the anode to generate at least one X-ray
pulse.

Claim ⁷~~6~~ (New): The method of claim ⁶~~4~~ wherein the at least one high voltage pulse is
generated by a Marx generator.

Claim ⁸~~7~~ (New): The method of claim ⁶~~4~~ wherein, a first circuit generates the at least one
high voltage pulse, and wherein further, the X-ray tube is preheated by a second circuit that is
the voltage source of the first circuit.

Claim ⁹~~8~~ (New): A method of inspecting objects comprising:
providing an X-ray tube having a thermionic cathode and an anode;
preheating the X-ray tube by continuously applying a low voltage to the X-ray tube
wherein the low voltage preheats the X-ray tube and is at most sufficient for the generation of
low-energy X-radiation;
generating at least one high voltage pulse;
applying the at least one high voltage pulse to the anode whereby at least one X-ray
pulse is generated.
passing the at least one X-ray pulse through an object; and
generating an image based on the at least one X-ray pulse passing thru the object.

Claim ¹⁰~~9~~ (New): The method of claim ⁹~~7~~ wherein the at least one high voltage pulse is
generated by a Marx generator.

Claim ¹¹~~10~~ (New): The method of claim ⁹~~7~~ wherein, a first circuit generates the at least one
high voltage pulse, and wherein further, the X-ray tube is preheated by a second circuit that is
the voltage source of the first circuit.

Claim ¹³~~10~~ (New): The method of claim ⁹~~7~~ further comprising:
transporting the object on a substantially horizontal plane of transport; and
moving the object through the at least one X-ray pulse wherein the X-ray pulse has a
predetermined direction.

Claim ¹³~~11~~ (New): The method of claim ⁹~~7~~, wherein the object is one of a plurality of
containers being transported individually in succession in a row on a substantially horizontal
plane of transport.

Claim ¹⁴~~12~~ (New): The method of claim ⁹~~7~~, wherein the at least one X-ray pulse passing
through the object, strikes an X-ray image converter and generates an image therein that is
recorded by a digital camera.